RISKS TO THE FORECASTS

The forecasts in this document are forecasts of aviation demand, driven by models built on forecasts of economic activity. There are many assumptions in both the economic forecasts and in the FAA models that could impact the degree to which these forecasts are realized. This year's forecast is driven, at least in the short-term, by a number of factors including the strength of the economic recovery and any impact resulting from the U.S. government fiscal situation. Also, as numerous recent incidents (like the attempted bombing of a Northwest airliner on Christmas Day 2009, the discovery of multiple devices on cargo flights out of Europe in October 2010) remind us, terrorism remains among the greatest risks to aviation growth. Any terrorist incident aimed at aviation would have an immediate and significant impact on the demand for aviation services that would be greater than its impact on overall economic activity.

Although oil prices remained high in 2012, there is still considerable uncertainty as to the level of oil prices once the economic recovery is on firmer ground. The FAA's baseline forecast (derived from economic assumptions in IHS Global Insight's 30-Year Focus released during the fourth quarter of 2012) calls for decreases in oil prices until 2015. These are relatively modest, with the price of oil approaching $80/barrel by 2015 and then gradually increasing thereafter, approaching $128/barrel by the end of the forecast period in 2033. Some forecasters are calling for a much sharper increase in the price of oil. The U.S. Energy Information Administration (EIA) in its 2013 Annual Energy Outlook projects oil prices to remain between $90 and $100/barrel through 2015-2016 and then rising steadily over the next 17 years, reaching $200 per barrel in 2033. While lower oil prices give consumers an impetus for additional spending, including air travel, and increases the chances for industry profitability, higher oil prices could lead to further shifts in consumer expenditures away from aviation, dampening a recovery in air transport demand. Furthermore, higher oil prices, especially in the near term, could wipe out industry profitability, put increasing pressure on airline costs, delay balance sheet improvements and discourage expansion plans or orders for new aircraft as carriers focus on maintaining and increasing cash balances.

Although the global economy is growing, the data suggests that growth is concentrated in relatively few countries. As a result, the ensuing economic recovery may not be balanced and there is considerable doubt about the strength and sustainability of the expansion. The baseline forecast assumes that growth in the BRIC[16] economies will be significantly higher than in the other large economies – U.S., Japan and the European Union. Doubts remain over the strength of demand in the U.S., Japan and in the European Union as these areas continue to be constrained by structural economic problems and institutional constraints. In addition, many countries in the European Union have implemented austerity policies, aimed at reducing government spending and personal debt, which could prolong the regional downturn. Furthermore the steps that were taken to resuscitate the global economy may prove to be

[16] Acronym given to the economies of Brazil, Russia, India, and China.

excessive, since the resulting surge in liquidity growth seems to be inflating asset bubbles and exacerbating existing global imbalances. Once the global economy recovers from the current downturn, there could be an increased risk posed by asset bubbles and macroeconomic imbalances, which could result in a deeper, more prolonged, and less manageable recession and financial crisis. The current forecasts assume strong passenger growth for travel between the United States and other world regions. Any slowing of worldwide economic activity could seriously inhibit the growth in global passenger demand.

The outlook for further consolidation via mergers and acquisitions (M&A) appears to be rather limited beyond the announced merger between American Airlines and U.S. Airways. If the merger is approved, this will leave the U.S. industry with four major players (Delta, United, American, and Southwest), who accounted for almost 80% of all capacity and traffic flown in 2012. Of the network carriers, only Alaska remains independent, although it does have code share agreements with both American and Delta. In the low cost carrier sector, the merger between Southwest and AirTran is progressing at a steady pace as the carriers plan to fully connect their networks by April, 2013 and have full integration of the fleet and a single ticketing system by the end of 2014. Aside from Southwest and AirTran, there appears to be little scope for further consolidation as there are significant obstacles. In particular the financial situation of many low cost carriers limits the possibilities of additional merger activity. For many low cost carriers, the sheer size of merger transactions or the amount of financial risk associated with a merger makes further merger activity unlikely. However, U.S. airlines are exploring other options including global alliances. Many of the major carriers in the U.S. are members of global alliances that operate with some measure of anti-trust immunity from the U.S. DOT. While anti-trust immunity may provide flexibility for airline operators across borders, it may create an anti-competitive environment in the marketplace. These market consolidating vehicles, particularly the anti-trust immunity provisions, may invite increased regulatory scrutiny. If such oversights are launched in the future, this will complicate the evolving structure of the airline industry and may impact demand via new regulations.

The forecast assumes the addition of sizable numbers of large regional jets (70 to 90 seats) into the fleet of regional carriers. However, the regional carriers' future is closely linked to those of the larger network carriers. As demand continues to slowly recover, increased financial pressures on regional operators have appeared. Furthermore, as consolidation has occurred among the network carriers, certain regional carriers have found themselves either saddled with excess capacity or lack of sufficient capacity, or lack of feed traffic. Unlike the period after the terror attacks of September 11, 2001, when network carriers also reduced the size and breadth of their networks, regional carriers have not necessarily seen opportunities for increased flying to backfill the loss of the mainline service. While Delta's announced plans to reduce its reliance on small (read 50 seat) regional jets may provide some opportunities for well positioned regional carriers, the overall impact of consolidation so far has been to reduce opportunities for regional flying substantially.

After suffering through a significant downturn in 2009, business and corporate aviation have seen a partial recovery during the past three years. The pace of the recovery in business and corporate aviation is largely based upon the future prospects of economic growth and corporate profits. Future uncertainty in these leading indicators could pose a risk to the forecast, but the risk is not limited to these factors. Public perception of business and corporate

aviation, potential environmental regulations and taxes, along with increased security measures placed on business jets, will place downward pressure on the forecast.

Other factors, such as new and more efficient product offerings and increased competition from new entrant manufacturers, serve to broaden the potential of the industry. Estimates show that a record number of new business jets are delivered overseas and, with the potential easing of regulations on the use of airspace in foreign countries, the scenario for business jet manufacturers looks all the more promising. Raising the level of security restrictions, and the subsequent travel hassles placed on airline passengers, could make corporate jet travel look increasingly appealing.

Not only is the volume of aircraft operating at most large hubs expected to increase over the next 20 years, so is the mix of aircraft for this same period. The expected increases in the numbers of regional jets and business jets will increase the impact the national airspace system and make the FAA's job more challenging. This increase in the mix of aircraft will impact workload strictly due to the increasing demand for aviation services projected over the forecast period.

Although overall activity at FAA and contract towers fell in 2012, activity at many of the largest airports increased in 2012 and delays remained at historically high levels at many U.S. airports. As demand recovers and workload increases, congestion and delays could become a critical limit to growth over the forecast period. FAA's forecasts of both demand and workload are unconstrained in that they assume that there will be sufficient infrastructure to handle the projected levels of activity. Should the infrastructure be inadequate and result in even more congestion and delays, it is likely that the forecasts of both demand and workload would not be achieved.

There are concerns that aviation's impact on the environment could potentially restrict the ability of the aviation sector to grow to meet national economic and mobility needs. Airport expansion or new construction is often a contentious issue because of noise, air quality, and water quality concerns. There is also an ongoing effort to address the climate impacts of aviation. Aviation currently accounts for 2 to 3 percent of global carbon emissions, but this percentage is expected to increase with the growth in operations unless mitigated with new technology, renewable fuels, operational improvements and market based measures. While certain measures to address climate impacts can result in reduced costs, such as increased fuel efficiency, other measures, such as market instruments could pose additional constraints on growth. Energy concerns are also rising, driven by spikes in fuel prices, supply and security issues, and concerns about fossil fuel emissions contributing to global climate change. Lack of progress in improving the environmental and energy outlook for the future fleet may result in more restrictions via standards or operating limitations on the fleet in service which in turn may depress growth. By contrast, breakthroughs in quieter, cleaner aircraft technologies and renewable fuels could reduce environmental and energy constraints on the forecast, and enable sustainable growth.